The New York Times | https://nyti.ms/3kburBB

Hurricane, Fire, Covid-19: Disasters Expose the Hard Reality of Climate Change

Twin emergencies on two coasts this week — Hurricane Isaias and the Apple Fire — offer a preview of life in a warming world and the steady danger of overlapping disasters.

By Christopher Flavelle and Henry Fountain

Published Aug. 4, 2020 Updated Sept. 9, 2020

[Follow our live California Wildfires coverage.]

A low-grade hurricane that is slowly scraping along the East Coast. A wildfire in California that has led to evacuation orders for 8,000 people. And in both places, as well as everywhere between, a pandemic that keeps worsening.

The daily morning briefing from the Federal Emergency Management Agency, usually a dry document full of acronyms and statistics, has begun to resemble the setup for a disaster movie. But rather than a freak occurrence, experts say that the pair of hazards bracketing the country this week offers a preview of life under climate change: a relentless grind of overlapping disasters, major or minor.

The coronavirus pandemic has further exposed flaws in the nation's defenses, including weak construction standards in vulnerable areas, underfunded government agencies, and racial and income disparities that put some communities at greater risk. Experts argue that the country must fundamentally rethink how it prepares for similar disasters as the effects of global warming accelerate.

"State and local governments already stretched with Covid responses must now stretch even further," said Lisa Anne Hamilton, adaptation program director at the Georgetown Climate Center in Washington. Better planning and preparation are crucial, she added, as the frequency and intensity of disasters increase.

Hurricane Isaias made landfall in the Carolinas on Monday evening, its 75 mile-an-hour winds driving a storm surge as great as five feet. By Tuesday afternoon, downgraded to a tropical storm, Isaias had pushed north to the Mid-Atlantic states and the Northeast. Flash flooding was reported in Pennsylvania, and damaging winds left more than 1.2 million people in New Jersey and New York without power. The storm also spawned tornadoes, including one that killed two people in North Carolina.

Isaias piled up pleasure boats in Southport, N.C. It is the ninth named storm of the year, a first this early in the hurricane season. Gerry Broome/Associated Press

Isaias makes nine named storms in the Atlantic so far this year, something that has never before happened this early in the hurricane season, which runs from June 1 to Nov. 30. Forecasters had predicted an active season, given warm ocean waters and other conditions, but 2020 is on track to be one of the busiest ever. It follows three years of devastating hurricanes, starting with Hurricane Harvey, Irma and Maria in 2017, then Florence and Michael in 2018 and Dorian in 2019.

“Climate change is tough for people to grasp, but attribution studies continue to find its DNA in today’s tropical systems, heat waves, droughts and rainstorms,” said Marshall Shepherd, a professor of atmospheric sciences and geography at the University of Georgia and director of its atmospheric sciences program.

For hurricanes, warmer oceans provide more energy, making them stronger. And warmer air holds more moisture, so the storms bring more rain.

“Climate change shifts us into an era of sustained elevated risk from extreme weather and climate events,” Dr. Shepherd said.

Isaias has captured much of the public’s attention, but it’s far from the only natural disaster facing the country. In Southern California, firefighters were struggling Tuesday to contain a wildfire in the San Bernardino Mountains 80 miles east of Los Angeles. It had spread rapidly in the rugged terrain after first being reported on Friday.

Called the Apple Fire, it has burned 27,000 acres so far, though it remains much smaller than other recent fires in the state. The largest, the Mendocino Complex Fire in 2018, burned nearly half a million acres. The disastrous Camp Fire of 2018, which burned 150,000 acres and killed 85 people, barely makes the Top 20 list.

“At a certain point in California’s history, 20,000 acres would have been a pretty big fire,” said Daniel Swain, a climate scientist at the University of California, Los Angeles. However, the warming climate and shifting precipitation patterns have lengthened the state’s fire season and contributed to an increase in larger fires.

The fires can grow more rapidly — in a matter of hours or days — as a result of warming that has made vegetation drier and more likely to ignite.

So far there are no reports of casualties from the Apple Fire. But there is concern downwind, in Nevada and other states, as smoke from the wildfire is carried eastward. In Las Vegas, Clark County air-quality officials issued a two-day smoke advisory, urging people with respiratory problems to stay indoors.

Wildfire smoke contains high amounts of soot and other fine particles that can aggravate asthma and other respiratory problems.

Amid the coronavirus pandemic, there is heightened concern that the smoke, while not necessarily increasing the rate of infection, can make cases of Covid-19, the disease caused by the virus, worse, said Dr. John Balmes, a professor of medicine at the University of California, San Francisco. There is strong evidence from studies of influenza and other viruses that smoke can increase the risk of deep-lung infections like pneumonia, which occurs in severe cases of Covid-19.

A coronavirus testing center in New York City said it would close as Isaias approached. Shannon Stapleton/Reuters

The combination of tropical storms, wildfires and other disasters, coming after months of prior disasters and the struggle to deal with the pandemic, has taken a growing toll on the nation's disaster response system. Part of the problem is that more frequent disasters make it harder to recover, according to Samantha Montano, an assistant professor of emergency management at Massachusetts Maritime Academy.

"What makes climate change so insidious is that it alters hazards, like flooding, just enough to turn what otherwise could have been just an emergency into a disaster, and disasters into catastrophes," Dr. Montano said. "Not only does this lead to more damage but also traps people in a cycle of recovery."

Coping with that change, she said, means that governments have to spend more money before a storm or wildfire hits, reinforcing homes and infrastructure, rather than just trying to build better afterward. And local emergency departments need increased funding as their jobs expand.

When state and local governments can't keep up with the need, responsibility falls to FEMA. But the agency risks being overwhelmed, according to Brock Long, who was FEMA's administrator during the hurricanes and wildfires of 2017 and 2018.

CLIMATE FWD: *What on earth is going on? Get the latest news about climate change, plus tips on how you can help.*

Sign Up

"The current business model for the Federal Emergency Management Agency, and the expectations placed upon it by the public and Congress, are unrealistic at this point," said Mr. Long, who is now executive chairman of Hagerty Consulting, which advises companies and governments on dealing with disasters.

That toll can be measured in the minutia of FEMA's daily briefings.

Three years ago, before Hurricane Harvey marked the beginning of a string of record natural catastrophes, FEMA was managing 27 major disasters around the country, with a staff of slightly more than 10,000 people. As of Tuesday, the agency was handling about twice as many disasters, not counting its pandemic response in every state and five territories, despite a staff increase of just one-third. And the country has yet to reach peak hurricane season.

In a statement, Lizzie Litzow, FEMA's press secretary, said the agency continues to help states hit by natural disasters.

"FEMA is well positioned with thousands of personnel in the field supporting existing operations, thousands more ready to support emergent disaster operations and more personnel joining the agency through virtual onboarding every two weeks," Ms. Litzow said.

Damage in Southport, N.C., from Isaias early Tuesday. WECT-TV, via Associated Press

But the real solution, Mr. Long said, isn't a bigger FEMA. Rather, local governments have to impose tougher building codes and restrictions in vulnerable areas, which home builders often oppose for fear of increased costs. If cities and towns had better building codes, he said, fewer people would need to evacuate their homes, reducing their exposure to the coronavirus.

"Mass evacuation has become a man-made disaster, because we failed to put proper residential codes or building codes in place," Mr. Long said. "We have a severe case of hazard amnesia."

Juan Declet-Barreto, a social scientist at the Union of Concerned Scientists who works on climate vulnerability, laid part of the blame with President Trump for difficulties in disaster response. The president, he said, has politicized the work of scientific agencies like the Centers for Disease Control and Prevention and the National Weather Service that Americans rely on to navigate disasters, and has tried to cut their budgets.

"They need to be well funded," Dr. Declet-Barreto said. "They need to be allowed to do their work."

The twin disasters of climate change and the pandemic have something else in common, he said, in addition to the failures of the Trump administration to respond to them. Both disasters have disproportionately hurt minorities.

"We shouldn't be romanticizing some sort of pre-Covid ideal state. We did not live in that," Dr. Declet-Barreto said. "These threats that we are living through are going to continue to expose the inequalities that already exist."